

FIG. 1

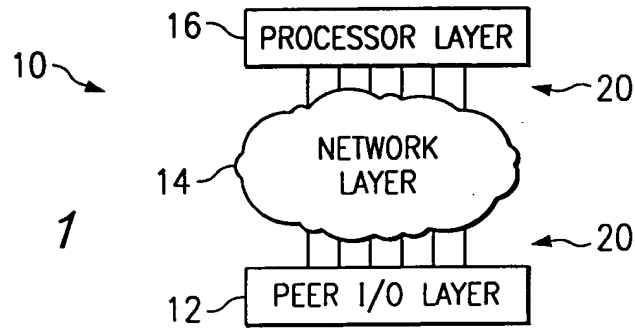


FIG. 2

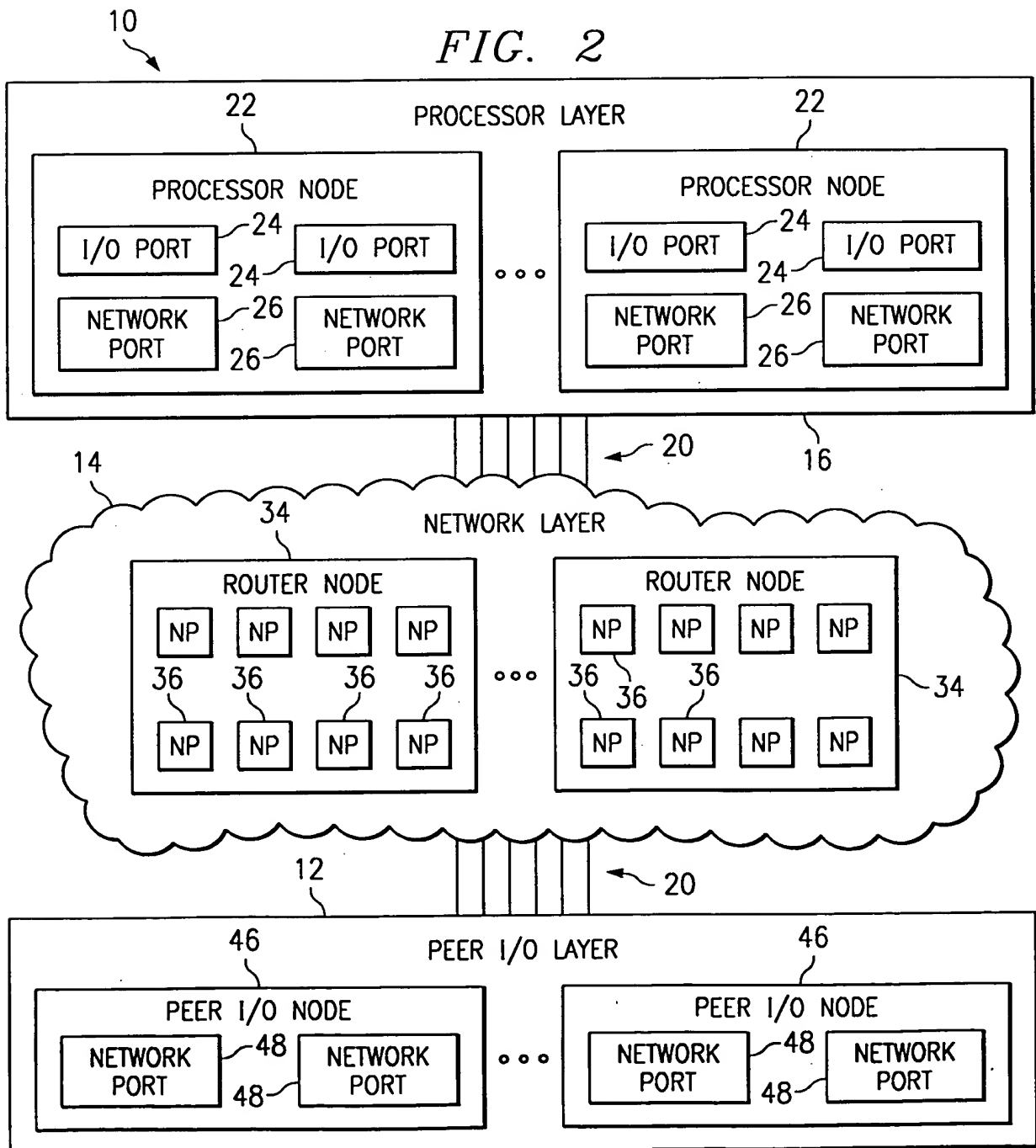
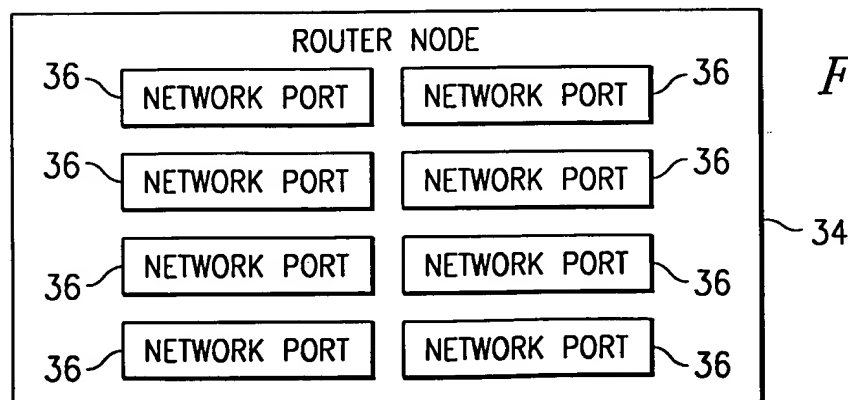
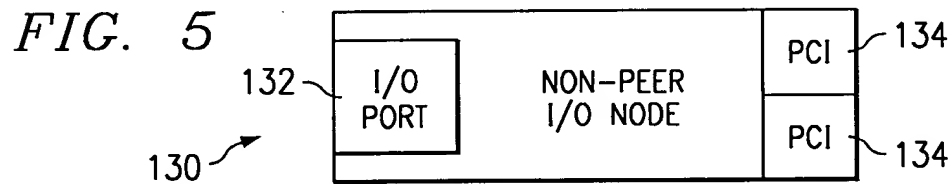
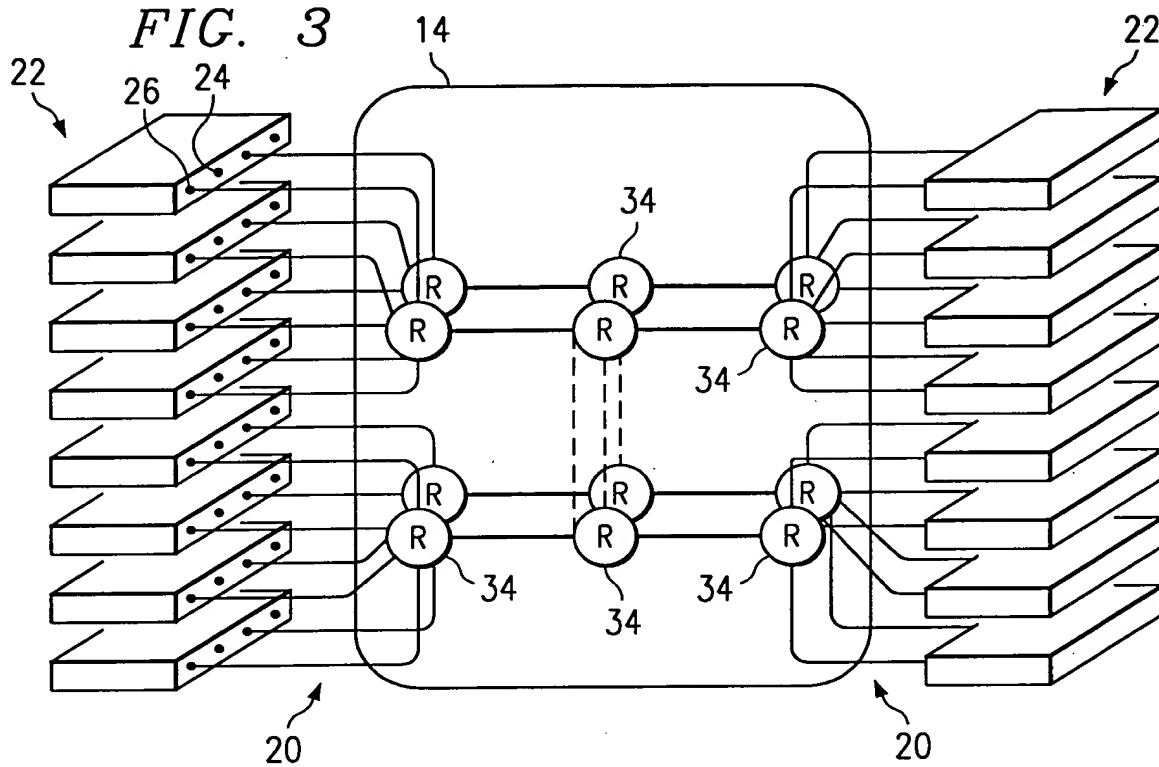


FIG. 2



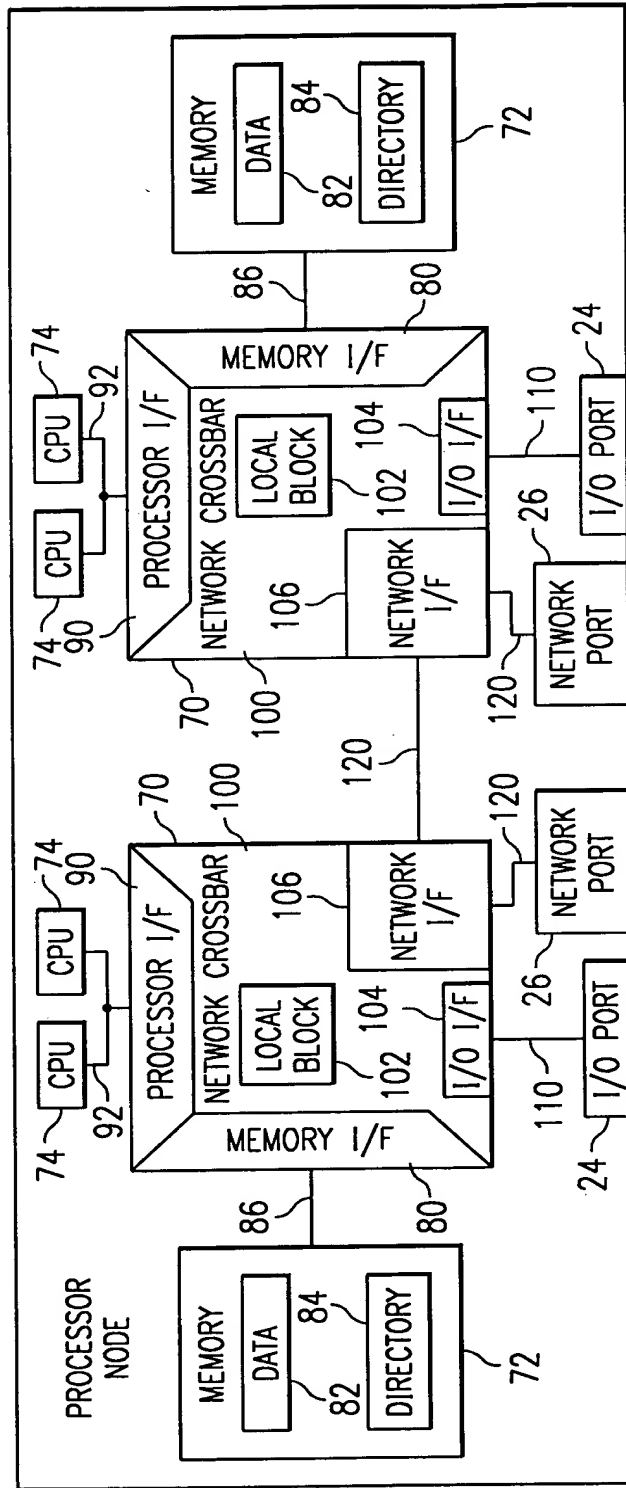


FIG. 4

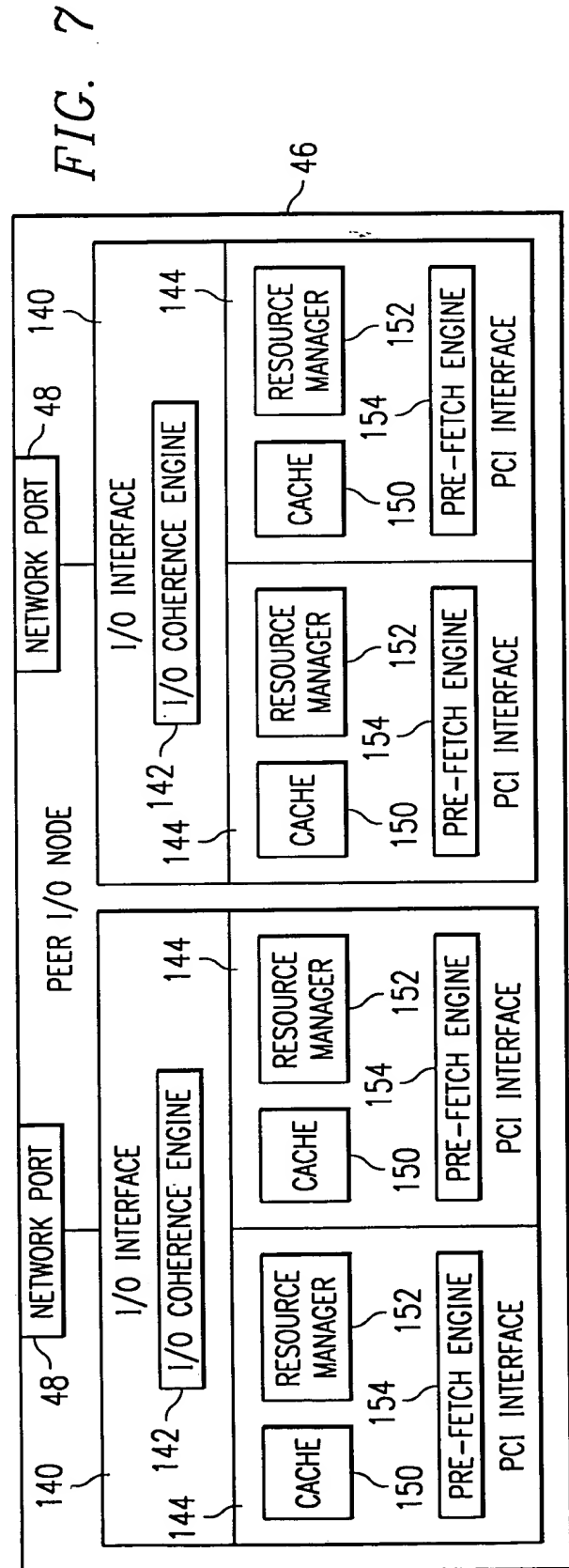
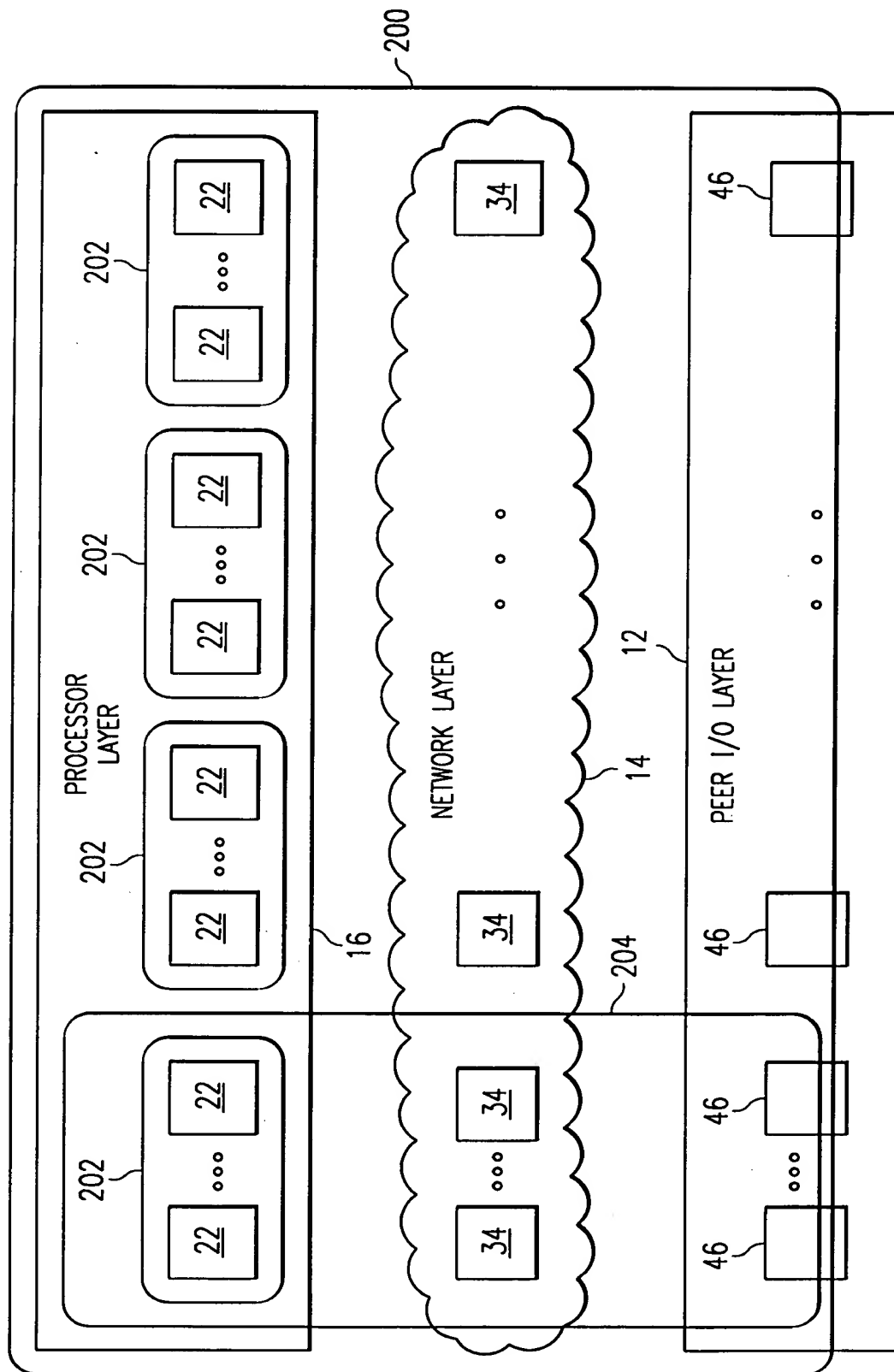


FIG. 7

FIG. 8



900			
902		904	906
GROUP		NAME	DESCRIPTION
910	READ	SHARED	READ
			RDSHD READ SHARED
		EXCLUSIVE	RDEXC READ EXCLUSIVE
			RDXRO EXCLUSIVE READ-ONLY TIMED
			RDXRN EXCLUSIVE READ-ONLY UNTIMED
		GET	GET READ INVALID
			GETF READ INVALID, FORCED
		etc.	AMOR ATOMIC MEMORY OPERATION, READ
			NCRD NON-COHERENT READ
912	WRITE	WRITEBACK	WRBK WRITEBACK
			WRBKR WRITEBACK, CONCURRENT READ OUTSTANDING
			IWE IMPLICIT WRITEBACK EXCLUSIVE
			RQSH CEX DROP (RELINQUISH)
			RQSHR CEX DROP, CONCURRENT READ OUTSTANDING
		PUT	PUT WRITE INVALIDATE
			PFCL CACHE LINE FLUSH
		ETC.	AMOW ATOMIC MEMORY OPERATION, WRITE
			NCWRD NON-COHERENT WRITE, DOUBLEWORD
			NCWRF NON-COHERENT WRITE, CACHE LINE
914	PROBE	SHARED	INTER INTERVENTION SHARED
		EXCLUSIVE	INEXC INTERVENTION EXCLUSIVE
			FLSH FLUSH
			ERASE ERASE
		GET	ININV INTERVENTION INVALID
			ININF INTERVENTION INVALID, FORCED
		ETC.	INVAL INVALIDATE
916	INVAL GENERATION	BINEV	BACKOFF INVALIDATE ECHO, VECTOR FORMAT
		LINWV	LOCAL BLOCK INVALIDATE VECTOR

FIG. 9

FIG. 10A

1000		1002	1004	1006
		GROUP	NAME	DESCRIPTION
1010	READ	SHARED	SRPLY	SHARED REPLY
			SRESP	SHARED RESPONSE
			SACK	SHARED ACKNOWLEDGE
			BINTR	BACKOFF INTERVENTION SHARED
		EXCLUSIVE	ERPLY	EXCLUSIVE REPLY
			ESPEC	EXCLUSIVE SPECULATIVE REPLY
			ERESP	EXCLUSIVE RESPONSE
			EACK	EXCLUSIVE ACKNOWLEDGE
			ERPYP	EXCLUSIVE REPLY, SEND PRGE
			BIEXC	BACKOFF INTERVENTION EXCLUSIVE
			BINW	BACKOFF INVALIDATE, VECTOR FORMAT
			BINVP	BACKOFF INVALIDATE, POINTER FORMAT
		GET	IRPLY	INVALID REPLY
			ISPEC	INVALID SPECULATIVE REPLY
			IRESP	INVALID RESPONSE
			IACK	INVALID ACKNOWLEDGE
			NACKG	NEGATIVE ACKNOWLEDGE TO GET
			BIINV	BACKOFF INTERVENTION INVALID
			BIINF	BACKOFF INTERVENTION INVALID FORCED
		ETC.	AARP	AMO READ REPLY
			NCRP	NON-COHERENT READ REPLY
			NACK	COHERENT READ NEGATIVE ACKNOWLEDGE
1012	WRITE	WRITEBACK	WBACK	WRITEBACK ACKNOWLEDGE
			WBBACK	WRITEBACK BUSY ACKNOWLEDGE
		PUT	WACK	WRITE INVALIDATE ACKNOWLEDGE
			WACKP	WRITE INVALIDATE ACK, SEND PRGE
			WNACK	WRITE INVALIDATE NEGATIVE ACKNOWLEDGE

TO FIG. 10B

1000

# FIG. 10B

FROM FIG. 10A

1012	WRITE	PUT	BFLSH	BACKOFF FLUSH	1012b
			BERSE	BACKOFF ERASE	
		ETC.	AWAK	AMO WRITE ACKNOWLEDGE	1012c
			NCWAK	NON-COHERENT WRITE ACKNOWLEDGE	
1014	PROBE	SHARED	SHWB	SHARING WRITEBACK	1014a
			DNGRD	DOWNGRADE	
			SHWBR	SHARING WRITEBACK, PRIOR WB PENDING	
			DNGDR	DOWNGRADE WITH PRIOR WB PENDING	
		EXCLUSIVE	PRGE	PURGE	1014b
			XFER	OWNERSHIP TRANSFER	
			PRGER	PURGE WITH PRIOR WB PENDING	
			XFERR	OWNERSHIP TRANSFER, PRIOR WB PENDING	
			IWACK	IMPLICIT WRITEBACK RACE ACKNOWLEDGE	
		GET	IIACK	INTERVENTION INVALID ACK	1014c
		ETC.	IVACK	INVALIDATE ACK	1014d
1016	ERROR		PERR	POISONED ACCESS ERROR	
			AERR	READ PROTECTION VIOLATION ERROR	
			WERR	WRITE PROTECTION VIOLATION ERROR	
			DERRR	DIRECTORY ERROR ON A READ REQUEST	
			DERRW	DIRECTORY ERROR ON A WRITE REQUEST	

FIG. 11

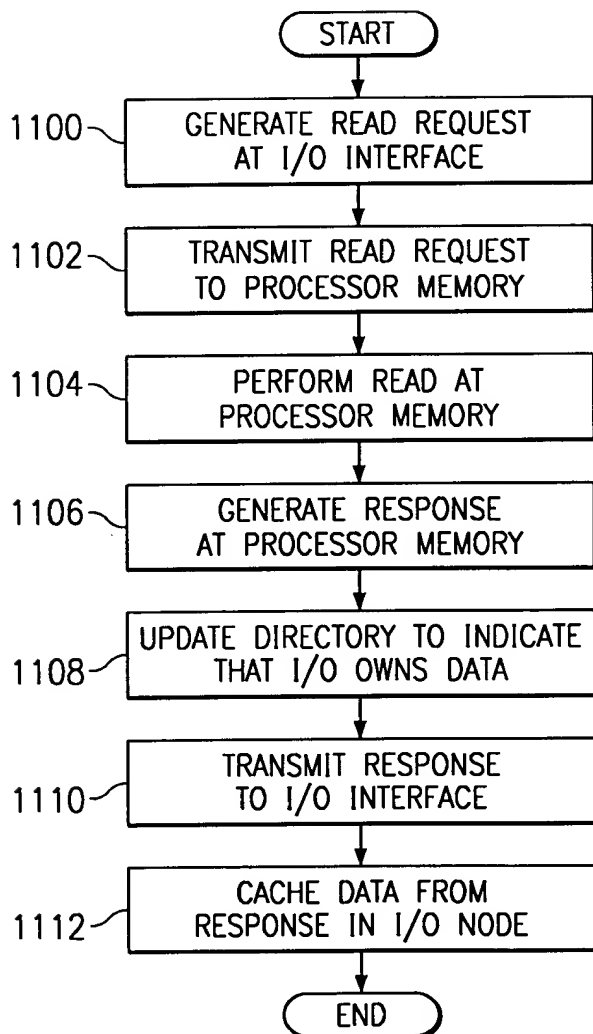


FIG. 12

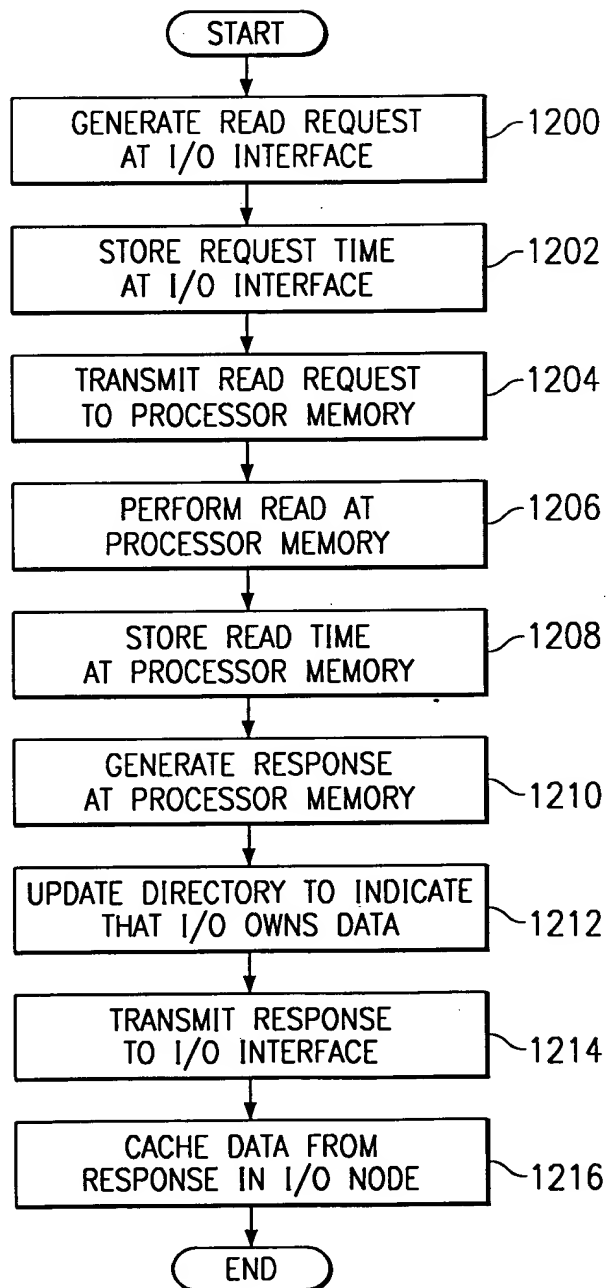




FIG. 13

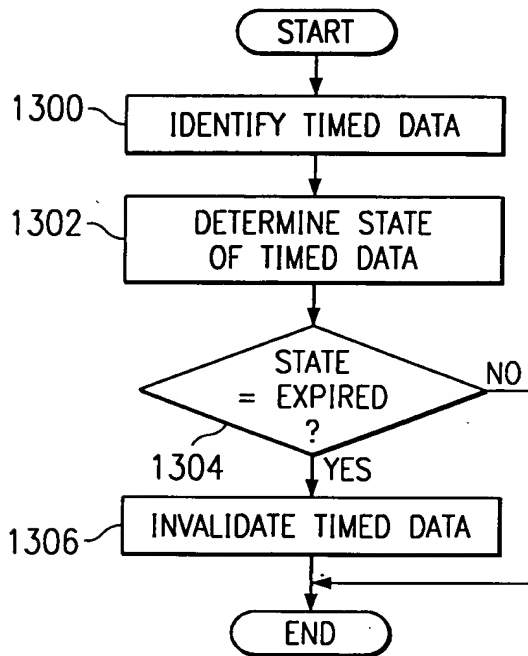


FIG. 14

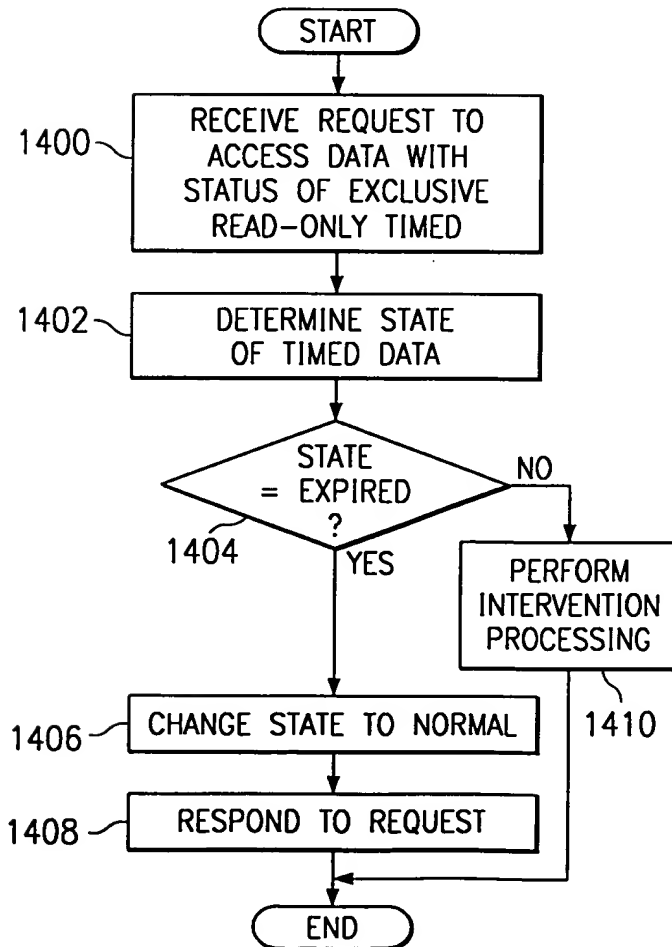


FIG. 15

